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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,828	09/07/2001	Aloysius Gerardus Majella Hemmer	B0 42179	8908

466 7590 06/19/2003

YOUNG & THOMPSON  
745 SOUTH 23RD STREET 2ND FLOOR  
ARLINGTON, VA 22202

EXAMINER
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NGUYEN, DANNY

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 06/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/869,828

Applicant(s)

HEMMER, ALOYSIUS GERARDUS  
MAJELLA

Examiner

Danny Nguyen

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7, 10-14 and 16 is/are rejected.
- 7) ☒ Claim(s) 4, 8, 9, 15, 17 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Specification***

1. The abstract of the disclosure is objected to because the abstract exceeds 150 words in length. Correction is required. See MPEP § 608.01(b).
2. The disclosure is objected to because of the following informalities: the specification does not contain " Background of the Invention, Field of the Invention, Summary of the Invention, detailed description of the Invention". Appropriate correction is required.

### ***Claim Objections***

3. Claims 4, 8, 17, are objected to because of the following informalities:

Claim 4, the phrase "armature and engaging moment yoke leg.." should be read "the armature and the engaging moment yoke leg.." and the phrase " respect to te..." should be "respect to the ...".

Claim 8, the phrase "a leaf spring engaging at one end against the armature part between the supporting yoke leg and the third yoke leg and is fixed at the other side in the housing ..." should be "a leaf spring engaging at one end against the armature part between the supporting yoke leg and the third yoke leg and the other end is fixed at the other side in the housing ...".

Claim 17, the phrase "the armature engages a curved house part ..." should be "the one end of the armature engages a curved house part...". Appropriate corrections are required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5-7, 11-14, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dardare et al. (FRPN 2,697,670) in view of Hara et al. (USPN 4,568,207).

Regarding to claims 1, 2, 6, 11, 13, Dardare et al. disclose a strip system for an electrical switch (see fig. 2, 3) comprising a yoke of magnetic material (22, 23, 24), consisting of a yoke base part (24), a first yoke leg (22) and a second supporting yoke leg (23), the first and second yoke legs extend in mutual spaced relation and in the same direction from the yoke base part and transversally thereto (fig. 2), an armature (25) from magnetic material bridging the free ends of the yoke legs (fig. 2), a permanent magnet (27) provided such that its magnetic field lines extend through a first magnetic circuit formed by the yoke and the armature, a coil (28) mounted on the yoke and a spring means (26) engaging the armature, in which the armature is held in a first position under influence of the magnetic field of the permanent magnet against the spring force of the spring means, in which the armature lies against the free end of the first yoke leg in which the armature can assume a second position under influence of the magnetic field developed by a current flowing through the coil and exceeding a predetermined limit value, in which the surfaces facing to each other of the armature

and free end of the first yoke leg are at a first air gap distance from each other. Dardare et al. do not disclose the armature is pivotally supported by the supporting yoke leg and a second magnetic circuit formed by the yoke and the armature and which in the first position of the armature, a magnetic resistance being higher than that of the first magnetic circuit and is decreasing when the armature moves from the first to the second positions. Hara et al. disclose an armature (24) is pivotally supporting by a supporting yoke leg (21), a second magnetic circuit formed by the yoke (20) and the armature (24)(shown in fig. 4) and which in the first position (such as reset position) of the armature, a magnetic resistance being higher than that of the first magnetic circuit and is decreasing when the armature moves from the first to the second positions (col. 10, lines 24-30). Note that when the armature 24 at the actuated position, the force of the spring 30 is decreased and causes the air gap between 22a and 26a being also decreased. It would have been obvious to one having skill in the art to modify the circuit of Dardare et al. with an armature and a second magnetic circuit as described above as taught by Hara et al. in order to obviate the magnetic attraction force in the circuit (Hara et al., col. 10, lines 20-25).

Regarding to claim 12, Dardare et al. disclose the supporting yoke leg (A) and the first yoke led C has the same length (see fig. 4b)

Regarding to claim 3, Dardare et al. disclose the armature has two legs, the one leg of which bridging the space between the first yoke leg and the supporting leg and a second leg of which extending transversely to the one leg at a distance from the supporting yoke leg, in which a space between the surfaces facing to each other of the

second leg and the supporting leg remains for accommodating the permanent magnetic with a second air gap (see fig. 4b).

Regarding to claim 5, 16, Dardare et al. disclose all limitations of claim 1 except for having the supporting yoke leg being a wedge shaped space, and a third leg with a beveled surface in the second position. Hara et al. disclose a supporting yoke leg (21) being a wedge shaped space (see fig. 4) and a third leg (22) with a beveled surface in the second position (the actuated position, when the spring 29 is compressed, the inclined surface is created between the third leg (22) and the armature 24). It would have been obvious to one having skill in the art to modify the circuit of Dardare et al. with a supporting leg with a wedge shaped space as taught by Hara et al. in order to obviate the magnetic attraction force in the circuit (Hara et al., col. 10, lines 20-25).

Regarding to claim 7, Dardare et al. disclose all limitations of claim 1 except for the spring engaged between the supporting yoke leg and a third yoke leg in the direction of decreasing the air gap. Hara et al. disclose the spring (such as spring 30) engaged between the supporting yoke leg (21) and a third yoke leg (22) in the direction of decreasing the air gap (when the force of the spring 30 is decreased by the compression of the spring 29, the air gap between the surfaces 22a and 26a is decreased). It would have been obvious to one having skill in the art to modify the circuit of Dardare et al. with a spring connected between the supporting leg and the third leg as taught by Hara et al. in order to obviate the magnetic attraction force in the circuit (Hara et al., col. 10, lines 20-25).

5. Claims 10, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dardare et al. in view of Hara et al. and further in view of Mitsuishi et al. (USPN 5,024,543). The combinations of Dardare et al. and Hara et al. disclose all limitations of claim 1 except for having a housing. Mitsuishi et al. disclose a housing (9 shown in fig. 3). It would have been obvious to one having skill in the art to modify the circuit of Dardare et al. and Hara et al. with a housing as taught by Mitsuishi et al. in order to accommodate the components of the circuit.

***Allowable Subject Matter***

6. Claims 4, 8, 9, 15, 17, 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 4 recites a strip system comprises the magnitude of the second air gap and the spring force of the spring means on the armature are selected such that the first position of the armature the moment of the attracting force between armature and engaging yoke leg is bigger by a predetermined value than the sum of moments of the attracting force at the location of the second air gap and the spring force acting on the armature, the moments are valid with respect to the armature pivoting point and the value is related to the limit value of the coil current.

Claim 8 recites a strip system comprises the compressed leaf spring engaged at one end against the armature part between the supporting yoke leg and the third yoke

leg and the other end is fixed at the other side in the housing in which in a position deferring from the second position of the armature, the spring and the armature define an angle.

Claim 15 recites a strip system comprises the armature has rounded corners at the ends.

Claim 17 recites a strip system comprises the one end of the armature engages a curved house part during the pivoting movement of the armature, the radius of the curvature corresponding to the radius of the path covered by the other end of the armature located above the third yoke leg.

Claim 18 recites a strip system comprises the permanent magnet is provided at its surface facing to the armature with a U-shaped pole shoe, the base of which extending parallel to the surface of the permanent magnet and the legs of which are running perpendicular to and in a direction of the surface, in which the armature is accommodated in a space defined by the base and the legs.

The references of record do not teach or suggest the aforementioned limitation, nor would it be obvious to modify those references to include such limitation.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danny Nguyen whose telephone number is (703)-305-5988. The examiner can normally be reached on Mon to Fri 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (703)-308-3119. The fax phone numbers



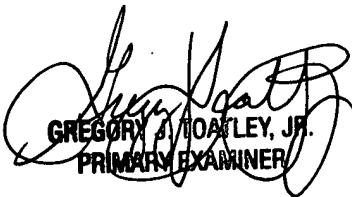
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for the organization where this application or proceeding is assigned are (703)-872-9318 for regular communications and (703)-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0956.

DN

DN  
June 6, 2003

  
GREGORY J. TOOLEY, JR.  
PRIMARY EXAMINER